ABSTRACT OF THE DISCLOSURE

A projection image data captured from a plurality of angles is processed, and a three-dimensional image data accurately indicating a three dimensional structure for an object is obtained. A shape computing unit 260 computes shape data indicating an outline of a subject using a plurality of first image data of the subject captured from a plurality of angles. A distributing unit 220 generates a gray-scale density-distribution by extending and distributing density indicated in a gray-scale image of the subject acquired by a projection image capturing apparatus to an angle at which the gray-scale image is captured. The second integrating unit 240 generates a three-dimensional gray-scale data indicating the subject with three-dimensional image data by integrating a plurality of gray-scale images acquired from a plurality of angles and a plurality of gray-scale density-distribution. The first integrating unit 280 integrates the three-dimensional gray-scale image and shape data. The data processing unit 300 generates the three-dimensional image data by extracting only the gray-scale data which exists in the circumference of the shape indicated in the shape data from the three-dimensional gray-scale data.